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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,010	05/02/2001	Ioana M. Rizoiu	BI9485P	5692

33197 7590 04/20/2006

STOUT, UXA, BUYAN & MULLINS LLP  
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IRVINE, CA 92618

EXAMINER

SHAY, DAVID M

ART UNIT	PAPER NUMBER
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3735

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/848,010

Applicant(s)

RIZOIU ET AL.

Examiner

david shay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on October 28, 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 29,31,48-52 and 55-59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29,31,48-52 and 55-59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 6, 2004 has been entered.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 29, 31, 48-52, and 55-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rizoiu et al (WO '928) in combination with Vassiliadis et al. Rizoiu et al (WO '928) provide the teachings set forth above and additionally teach the use of the electromagnetically induced mechanical cutter in conjunction with a variety of conventional tools including lasers and hydrokinetic cutters, wherein the fluid particles are conditioned with e.g. anesthetics (see page 47, line 22 through page 55, line 21). Vassiliadis et al teach that irradiating a tooth at low levels can desensitize the tooth and enable more rapid removal of dentin by conventional laser means (see column 5, line 7-30) and to employ the cutting laser when the water is not being sprayed (see column 6, lines 5-14) and that tissue can be removed bloodlessly. It would have been obvious to the artisan of ordinary skill to employ the laser steps of Vassiliadis wherein tissue is removed quickly by thermal cutting in the method of Rizoiu et al (WO '928), since this would provide rapid tissue removal for a large amount of tissues, while enabling the thermally damaged tissue remaining to be removed by the non-thermal cutting of Rizoiu et al (WO '928), since this would save time and be less stressful on the patient, as taught by Vassiliadis et al or to employ the non thermal cutting steps of Rizoiu et al (WO '928) in the

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method of Vassiliadis et al, since this would leave only healthy, viable tissue with a good bonding surface, as taught by Rizoiu et al (WO '928) thus producing a method such as claimed.

Regarding the art rejections it is noted that Rizoiu et al (WO '928) teach the use of the hydrokinetic cutter with conditioned fluid particles as well as with thermal lasers. The thermal lasers use a second amount of moisture (e.g. none), which is less than the first amount and will contain less vasodialator, etc than the first amount.

Regarding the combination of Vassiliadis and Rizoiu et al (WO '928) applicant theorizes that "it is quite possible that the WO '928 device would already, without modification, operate in a rapid pain free fashion on the tooth". While applicant's theory is noted, it is not germane to the evaluation of the propriety of the combination. As one having ordinary skill in the art is well aware, the precursor to laser tooth tissue removal was mechanical removal, which was painful and required some sort of anesthesia. As specifically recited in Rizoiu et al (WO '928) the removal mode as also mechanical. This would lead one having ordinary skill in the art to understand that some sort of anesthesia would be required.

Applicant then points to the commercial product covered by Rizoiu et al (WO '928), asserting that "one skilled in the art would be aware of the product...which was known at the time of the invention to operate without inducing substantial pain on teeth, (See [www.biolase.com](http://www.biolase.com)). The examiner firstly notes that it is the Rizoiu et al (WO '928) document, which has been applied to the claims, not the product developed therefrom. This notwithstanding, the examiner has perused the cited web site and has located two articles (attached). "Lasers for Every Dentist" extols the virtues of the product referring to it as "pain-free" and the section on "Endo/Root Canal Procedures" includes the quote "I don't use any

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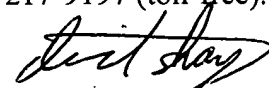
anesthesia” from Dr. James Jesse. The second article (“Complete root canal therapy using the Waterlase YSGG all –tissue dental laser”) which describes itself as containing “step-by-step procedures for using the Waterlase YSGG all – tissue dental laser ... to complete Endolase root canal therapy.” Note step 1: “ use the 600  $\mu$ m endo laser tip with very little laser energy to desensitize the tooth.” Thus applicant’s assertions that such a no water procedure (i.e. low level laser tooth desensitization, which is clearly not considered “anesthesia” in the art, as can be seen from the above passages) would not be used are not convincing.

Applicant's arguments filed February 6, 2004 have been fully considered but they are not persuasive. The arguments are not convincing for the reasons set forth above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to david shay whose telephone number is (571) 272-4773. The examiner can normally be reached on Tuesday through Friday from 6:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco, can be reached on Monday through Friday. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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